

AD/A-005 981

WHO IS IN CHARGE OF SLAG SITALL

I. Stebakova

Army Foreign Science and Technology Center
Charlottesville, Virginia

30 September 1974

DISTRIBUTED BY:

NTIS

National Technical Information Service
U. S. DEPARTMENT OF COMMERCE

AD A 005981



071098 DEPARTMENT OF THE ARMY
U.S. ARMY FOREIGN SCIENCE AND TECHNOLOGY CENTER
220 SEVENTH STREET NE.
CHARLOTTESVILLE, VIRGINIA 22901

0

TRANSLATION

In Reply Refer to:
FSTC-HT-23. 0027-75
DIA Task No. T741801

Date: 9/30/74

ENGLISH TITLE: Who is in Charge of Slag Sitall?

SOURCE: Stroitel'naya gazeta #64 (5742), Friday, 4 June, 1971,
p. 3, col. 1-3
CIRC AN1113960

AUTHOR: I. Stebakova

LANGUAGE: Russian

COUNTRY: USSR

REQUESTOR: S.D. Petschke

TRANSLATOR: Leo Kanner Associates, Redwood City, California
MP

ABSTRACT: The questions posed in this article relate to the competence of deputies to the Ministry of Production of Building Materials of the USSR, D. I. Alekhin and M. D. Vorobievs'kiy and also the director of the Building Materials and Glass Industry section of Gosplan USSR, Yu. N. Kalutin.

The editorial staff proposes that these comrades explain to the readers how the production of slag sitall will develop in the next few years.

D D C
REF ID: A67116
FEB 25 1975
REGULATED
D

Reproduced by
NATIONAL TECHNICAL
INFORMATION SERVICE
U.S. Department of Commerce
Springfield VA 22151

NOTICE

The contents of this publication have been translated as presented in the original text. No attempt has been made to verify the accuracy of any statement contained herein. This translation is published with a minimum of copy editing and graphics preparation in order to expedite the dissemination of information.

Approved for public release. Distribution unlimited.

NOT EDITED

In the four years after the "Moskva" department store began operation it was closed twice for repair. And always for the same reason: the polyvinyl chloride floors did not hold up--they wore out. In the last repair the material was replaced. Tile made from slag-sitall was installed. Besides the fact that it will last practically forever, expenses of installation were cut down by 30 percent.

The hangars of Sherem'etevskiy Airport, paved with sheet slag-sitall, will hold up under the weight of modern airliners; it is not affected by oil which is destructive of other materials.

The manufacture of large-dimension tile made from slag-sitall decreases the number of seams in the flooring for industrial transport areas at landing and take-off strips. The fewer the seams the longer lasting will be the underlying elements of the structure: waterproofing, sublayers, reinforced concrete tile of the flooring, columns, walls, foundations. The degree of acidity of the soils is decreased and consequently the time period for retaining underground utilities is increased; the causes of disintegration of soil structure and crumbling are eliminated. It is known that in a number

of cases these phenomena lead to premature disintegration of whole buildings.

The use of slag-sitall articles for interior and exterior facings of walls and other structures cuts down on expenditure of labor for a construction area by 5--8 percent in comparison with other materials, increases the quality and life of structures, decreases the expenditure of waterproofing.

Specific economic savings when using slag-sitall in flooring for industrial buildings in comparison with acidproof ceramics amounts to 1.2 rubles, on the average, for each square meter; and in comparison with cast stone--2.1 rubles. In an abrasive medium, slag-sitall is more economical in comparison with vitreous floor tile by 2 rubles and in comparison with acidproof tile--by 4 rubles per square meter. It is suitable for use in an alkaline medium.

The use of slag-sitall for lining etching baths, conduit and pipe intended for transporting ore, slag, sand, bituminous coal and other abrasive material results in a huge savings in the quantity of metal used.

Raw material for the production of this new material is more than adequate in all regions of the country. It is a metallurgical slag and cinder from thermal power stations. In recent years more than 2 million square meters of tile of various thicknesses, color and degree of surface treatment have been made on its base. But up until now there has not been sufficient slag sitall. Why? Perhaps the production processes are poorly developed? No.

At scientific research institutes which study this problem considerable production stock has been accumulated. A method has been worked out for obtaining sheet slag-sitall by a method of "floating tape," in various colors. In quality, including exterior appearance, it is as good as granite and marble. Data has been attained on test units which permit one to start planning and building shops for the manufacture of white sheet and fibrous slag-sitall and

other pipe.

All that remains is to organize mass production of slag-sitall. However,
although there's already been several years of operation of test-industrial
shops, the work does not proceed.

Planning the development of industry according to the department of Gosplan [Gosudarstvennyy planovyy komitet SSSR, State Planning Commission USSR] year after year, they cancel slag-sitall production in the section for capital investment in the glass industry and consider that it should be included in the plan for development of ferrous metallurgy. The motives apparently are reasonable: they used to plan to obtain sitall from liquid-molten slags, and planned to construct special mills and units at metallurgical plants for their processing.

But the profit in this is not yet apparent. There is not yet any technology or even any scientific bases for the production of sitalls from liquid-molten melts.

The State Committee on Science and Engineering does not plan to have the bases until 1973. And then after that it will be necessary to develop a new production process! But there is a process which has already been developed based on the utilization of granulated, and not liquid-molten slags.

There is enough granulated slag in the country. It is purposeless to consider that it is in short supply. Only half of this product is used as an additive for cement, and the other half is used in road coatings, fill for attic floorings and other needs which can be satisfied not with granulated but with waste slag.

The Ministry of Building Materials of the USSR which developed production processes for the production of articles made of slag-sitalls, apparently, has become cool toward it. Materials on the technical and economic bases for the

creation of power in the central regions of the country and in Siberia have been gathering dust on the shelves for more than 2 years. And actual decisions have not been made.

The Ministry has carried on correspondence on this question, but it has resulted in a request for additional capital investment for the construction of new plants. This is hardly the most rational and real path. The Ministry of Building Materials proposes adequately large capital investment, funds for the development of industry and possibilities of bank credit in order to avoid additional appropriations. But workers of the Ministry prefer, apparently, to spend this money on the development of traditional and less efficient types of production, for example stone casting and even glass. Meanwhile, in these branches by reconstruction of certain mills and production lines one could fully organize the production of slag-sitalls from granulated slag by technology which has been developed and completely mastered.

The metallurgical industry itself would require somewhat more time for the mastery of the new production. Right now according to the plan for development worked out by Gipromez [Gosudarstvennyy soyuznyy institut po proyektirovaniya metallurgicheskikh zavodov, State All-Union Institute for the Planning of Metallurgical Plants] production of slag-sitalls by metallurgists is not planned.

The search for the "boss" of slag-sitalls among the Ministries and departments must be expedited. In Gosstroy [Vserossiyskaya gosudarstvennaya stroitel'naya kontora, The Office of State Construction] of the USSR proposals approved by the government plan to give builders in 1975, 20 million square meters of slag-sitall coatings and other articles. In just 1 year this can save approximately 60 million rubles.